

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-20 are pending in the application, with 1, 6, 10, 12, 19, 20 being the independent claims.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 102

Claim 20

Claim 20 stands rejected under 35 U.S.C. 102(e) as being anticipated by Mannette et al. (US Patent 6,975,652). The applicant respectfully traverses this rejection.

Claim 20 includes the element of "a serial packet sync receiver that receives a serial packet sync datastream on a single pin." An example of "a serial packet sync receiver that receives a serial packet sync datastream on a single pin" is shown in Fig. 6 as shift register 602 and described in Paragraph [0049]. Further, the benefits of receiving a serial packet sync datastream on a single pin are described at Paragraphs [0004]-[0005].

Mannette differs from the claimed invention in that Mannette does not disclose "a serial packet sync receiver that receives a serial packet sync datastream on a single pin." In the outstanding Office Action, the examiner relies on the fact that the CM in Mannette receives control messages from the CMTS as support for the argument that Mannette includes this element. However, as described in Mannette,

the CM and CMTS communicate via a Hybrid Fiber Coax network (See Col. 3 lines 21-24). A Hybrid Fiber Coax connection is not a single pin connection. Thus, receiving control messages via a Hybrid Fiber Coax network does not teach the element of "a serial packet receiver that receives a serial packet sync datastream on a single pin." For at least this reason, Mannette does not anticipate claim 20. Reconsideration and allowance of claim 20 is respectfully requested.

Claims 6 and 7

Claims 6 and 7 stand rejected under 35 U.S.C. 102(e) as being anticipated by Chappell et al. (US Patent 6,973,096). The applicant respectfully traverses this rejection.

Claim 6 includes the element of "transmitting said serial packet sync datastream by synchronously shifting each bit of said serial packet sync datastream out of said serial packet sync transmitter." An example of "serial packet sync transmitter" that synchronously shifts each bit out is serial packet sync transmitter 502 implemented in the form of a shift register described in Paragraph [0049] of the specification. As is known in the art that there are many types of shift registers which are classified by (1) how data is input (e.g. serial-in or parallel-in) and (2) how data is output (e.g. serial-out or parallel-out). The claimed invention outputs data by "synchronously shifting each bit out." The advantage of synchronously shifting each bit out of a serial packet sync transmitter is that it allows data to be transmitted on a single pin as described at Paragraph [0006].

Chappell differs from claim 6 in that Chappell does not disclose "transmitting said serial packet sync datastream by synchronously shifting each bit of said serial packet sync datastream out of said serial packet sync transmitter." In the Office Action, the examiner relies on that fact that, in Chappell, shift register 304 forwards data to data buffer 334. Chappell is silent on how data is actually forwarded. The Examiner seeks to make up for this deficiency by stating "it is obvious that bits are being shifted in the shift register." An obvious statement is not proper under a 35 U.S.C. 102(e) rejection without further support. If the Examiner continues to rely on Chappell to reject claim 6, the Examiner is requested to provide the basis for the Examiner's view that "it is obvious that bits are being shifted in the shift register. The Examiner's obvious statement does not overcome the deficiencies of Chappell.

Further, it is not inherent that shift register 302 shifts out data. As discussed above with respect to claim 20, it is possible to have a shift register that inputs data by shifting data into the register and that outputs data by using a bus so that each data bit is output at the same time in a parallel manner. Therefore, Chappell does not teach the element of "transmitting said serial packet sync datastream by synchronously shifting each bit of said serial packet sync datastream out of said serial packet sync transmitter." For at least this reason, claim 6 is allowable over Chappell. Reconsideration and allowance of this claim is respectfully requested.

Claim 7 is dependent on claim 6 and is not anticipated by Chappell for the reasons stated above.

Claim 12

Claim 12 stands rejected under 35 U.S.C. 102(e) as being anticipated by Gatherer et al. (US Patent 6,49,584). The applicant respectfully traverses this rejection.

Claim 12 includes the element of "a serial packet sync receiver that receives a serial packet sync datastream on a single pin." An example of "a serial packet sync receiver that receives a serial packet sync datastream on said single pin" is shown in Fig. 6 as shift register 602 and described in Paragraph [0049]. Further, the benefits of receiving a serial packet sync datastream on a single pin are described at Paragraphs [0004]-[0005].

Gatherer differs from claim 12 in that Gatherer does not disclose "a serial packet sync receiver that receives said serial packet sync datastream on a single pin." In the Office Action, the Examiner relies on the fact that cable modem 10 in Gatherer receives a downstream signal for central office modem as the Examiner's support that Gatherer teaches this element. However, as described in Gatherer, cable modem 10 and central office modem 12 communicate via a coaxial cable or Hybrid Fiber Coax network (See Col. 7 lines 4-32). A cable modem network connection is not a single pin. Thus, receiving data via a Hybrid Fiber Coax network does not teach the element of "a serial packet receiver that receives a serial packet sync datastream on a single pin." For at least this reason, Gatherer does not anticipate claim 12. Reconsideration and allowance of claim 12 is respectfully requested.

Rejections under 35 U.S.C. § 103

Claim 1

Claims 1 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Chappell et al. (US Patent 6,973,096) in view of Mannette et al. (US Patent 6,975,652). The applicant respectfully traverses this rejection.

Claim 1 includes the element of "transmitting said serial packet sync datastream by synchronously shifting each bit of said serial packet sync datastream out of said serial packet sync transmitter." The Examiner relies on Chappell to disclose this element. As discussed in accordance with claim 6 above, Chappell does not disclose this limitation.

Further, claim 1 also includes the element "synchronously receiving each bit of said serial packet sync datastream into a serial packet sync receiver." The Examiner admits that Chappell does not teach this element and relies of the fact that the CM in Mannette receives a control message from CMTS as the Examiner's basis for holding that this element is disclosed by the combination of Chappell and Mannette. As discussed in accordance with claim 20, the CM and CMTS of Mannette communicate over a Hybrid Fiber Coax connection. This type of communication is not "synchronously receiving each bit" as defined in the context of the claimed invention. Thus, Mannette does not disclose this element.

Since the combination of Chappell and Mannette fail to teach, suggest or disclose all of the elements of claim 1, claim 1 is patentable in view of the combination of Chappell and Mannette. Withdrawal of this rejection and allowance of claim 1 is respectfully requested.

Claim 3

Claim 3 is dependent on claim 1 and is patentable over the combination of the the Chappell and Mannette references for the reasons stated above in accordance with the discussion of claim 1.

Claims 2 and 4

Claim 2 and 4 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Chappell et al. (US Patent 6,973,096) in view of Mannette et al. (US Patent 6,975,652) as applied to claim 1 in further view of Moore, Jr. et al. (US Patent 6,807,195). The applicant respectfully traverses this rejection.

Claims 2 and 4 are dependent on claim 1 and are patentable over the combination of the Chappell, Mannette and Moore references. The Moore reference does not cure the deficiencies of Chappell and Mannette as a basis for rejecting claim 1. Thus, for at least the reasons stated above in accordance with the discussion of claim 1, claims 2 and 4 are also allowable. Reconsideration and allowance of claims 2 and 4 is respectfully requested.

Claim 5

Claim 5 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Chappell et al. (US Patent 6,973,096) in view of Mannette et al. (US Patent 6,975,652) as applied to claim 1 in further view of Chapman (US Patent 7,085,287). The applicant respectfully traverses this rejection.

Claim 5 is dependent on claim 1 and is patentable over the combination of the Chappell, Mannette and Chapman references. The Chapman reference does not cure

the deficiencies of Chappell and Mannette as a basis for rejecting claim 1. Thus, for at least the reasons stated above in accordance with the discussion of claim 1, claim 5 is also allowable. Reconsideration and allowance of claim 5 is respectfully requested.

Claims 8 and 9

Claims 8 and 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Chappell et al. (US Patent 6,973,096) as applied to claim 6 in further view of Chapman (US Patent 7,085,287). The applicant respectfully traverses this rejection.

Claims 8 and 9 are dependent on claim 6 and are patentable over the combination of the Chappell and Chapman references. The Chapman reference does not cure the deficiencies of Chappell as a basis for rejecting claim 6. Thus, for at least the reasons stated above in accordance with the discussion of claim 6, claims 8 and 9 are also allowable. Reconsideration and allowance of claims 8 and 9 is respectfully requested.

Claim 10

Claim 10 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Chappell et al. (US Patent 6,973,096) in view of Gatherer et al. (US Patent 6,49,584) and Mannette et al. (US Patent 6,975,652). The applicant respectfully traverses this rejection.

Claim 10 includes the element of "synchronously receiving each bit of a serial packet sync datastream into a serial packet sync receiver." The examiner relies on the fact that the CM in Mannette receives control messages from the CMTS to meet this

limitation. As discussed in accordance with claim 20, CM and CMTS of Mannette communicate over a Hybrid Fiber Coax connection. This type of communication is not "synchronously receiving each bit" as defined in the context of the claimed invention. Thus, Mannette does not teach, suggest or disclose this element.

Because the combination of Chappell, Gatherer, and Mannette fail to teach, suggest or disclose all of the elements of claim 10, claim 10 is patentable over the combination of Chappell, Gatherer and Mannette. Reconsideration and allowance of claim 10 is respectfully requested.

Claim 11

Claim 11 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Chappell et al. (US Patent 6,973,096) in view of Gatherer et al. (US Patent 6,49,584) and Mannette et al. (US Patent 6,975,652) as applied to claim 10 in further view of Moore, Jr. et al. (US Patent 6,807,195). The applicant respectfully traverses this rejection.

Claim 11 is dependent on claim 10 and is patentable over Chappell et al. in view of Gatherer et al. and Mannette et al. for the reasons stated above in accordance with the discussion of claim 10. Reconsideration and allowance of claim 10 is respectfully requested.

Claim 13

Claim 13 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Gatherer et al. (US Patent 6,49,584) as applied to claim 12, and further in view of Krieger (US patent 6,769,093). The applicant respectfully traverses this rejection.

Claim 13 is dependent on claim 12 and is patentable over the combination of Gatherer and Krieger for the reasons stated above in accordance with the discussion of claim 12. Reconsideration and allowance of claim 13 is respectfully requested.

Claim 14

Claim 14 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Gatherer et al. (US Patent 6,49,584) as applied to claim 12, and further in view of Mannette et al. (US patent 6,975,652). The applicant respectfully traverses this rejection.

Claim 14 is dependent on claim 12 and is patentable over the combination of Gatherer and Mannette for the reasons stated above in accordance with the discussion of claim 12. Reconsideration and allowance of claim 14 is respectfully requested.

Claim 15

Claim 15 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Gatherer et al. (US Patent 6,49,584) as applied to claim 12, and further in view of Coles et al. (PG PUB 2004/0150537). The applicant respectfully traverses this rejection.

Claim 15 is dependent on claim 12 and is patentable over the combination of Gatherer and Coles for the reasons stated above in accordance with the discussion of claim 12. Reconsideration and allowance of claim 15 is respectfully requested.

Claims 16-18

Claims 16-18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gatherer et al. (US Patent 6,49,584) as applied to claim 12, and further in view of Chappell (US Patent 6,973,096). The applicant respectfully traverses this rejection.

Claims 16-18 are dependent on claim 12 and are patentable over the combination of Gatherer and Chappell for the reasons stated above in accordance with the discussion of claim 12. Reconsideration and allowance of claims 16-18 is respectfully requested.

Claim 19

Claim 19 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Gatherer et al. (US Patent 6,49,584) in view of Chappell (US Patent 6,973,096) and Krieger (US Patent 6,796,093).

Claim 19 includes the element of "wherein said serial packet sync encoder comprises a serial packet sync transmitter that transmits said serial packet sync datastream on a single pin as an indication that said grant has arrived." An example of a "serial packet sync transmitter that transmits said serial packet sync data stream on a single pin," is serial packet sync transmitter 502 implemented in the form of a shift register described in Paragraph [0049] of the specification.

The examiner relies on an SCTCM encoder of Krieger to meet this limitation. The SCTCM encoder of Krieger is shown in more detail in Figure 5 of Krieger and described in more detail at Col. 5 lines 45-50. As shown in Figure 5 and described in Col. 5 lines 45-50, SCTCM encoder of Krieger outputs multiple 8-PSK symbols. As shown in Figure 5, it appears that each symbol has a dedicated data line. As such, the

SCTCM encoder of Krieger does not "transmit said serial packet datastream on a single pin." Thus, Krieger does not teach, suggest or disclose this element.

Because the combination of Gatherer, Chappell, and Krieger fail to disclose all of the elements of claim 19, claim 19 is patentable over their combination.

Reconsideration and allowance of claim 20 is respectfully requested.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Amdt. dated September 24, 2007 - 18 -
Reply to Office Action of May 23, 2007

Robert J. LEE
Appl. No. 10/689,935
Atty. Docket: 1875.3480001

Prompt and favorable consideration of this Amendment and Reply is
respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael D. Specht
Attorney for Applicant
Registration No. 54,463

Date: 9/24/07

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600
682322_2.DOC